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Environmental Tobacco Smoke in Public Places and Workplaces:
Current Knowledge and Implications for Policy.

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KNOWLEDGE AND
IMPLICATIONS FOR POLICY**

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The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Ontario Tobacco Research Unit or any organization with which the authors are affiliated.

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ABSTRACT

This literature review explores the facts and issues related to the development of municipal bylaws regulating smoking in workplaces and public places. A number of factors are examined including the health effects of environmental tobacco smoke (ETS), public opinion about ETS and tobacco control measures, current legislation on passive smoking, municipal tobacco control, ventilation and cleaning systems, impact on business and tourism, enforcement, and smokers' rights. Research suggests that there is strong public support for smoke-free bylaws and that they do not adversely affect business or tourism. Given current knowledge about the health hazards of ETS, it is clear that prohibitions on smoking in all public places and workplaces provide the optimal protection of worker and public health.

ABSTRACT

This literature review explores the factors and issues related to the development of regulations that regulate smoking in workplaces and public places. A number of factors are examined including the health effects of environmental tobacco smoke (ETS), the economic costs of ETS and tobacco control measures, current legislation on passive smoking, municipal tobacco control ventilation and cleaning systems, factors on business and tobacco control and the role of research in setting tobacco control policy. The review concludes that the evidence on the adverse effects of ETS is strong and that the health benefits of tobacco control measures are substantial. It is clear that prohibitions on smoking in all public places and workplaces provide the optimal protection of workers and public health.

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INTRODUCTION

This literature review focuses on environmental tobacco smoke (ETS) in indoor public places and workplaces. Its purpose is to review the facts and issues related to developing and implementing municipal bylaws respecting smoking in these settings. A number of policy options are also offered. It is hoped that these will be considered, where appropriate, by Boards of Health and municipal councils in Ontario and elsewhere.

BACKGROUND

ETS is a known health hazard and causes disease, including respiratory disease and lung cancer, in otherwise healthy non-smokers (Schabas, 1991). Recognizing the harmful effects of ETS, many municipalities in Ontario and elsewhere in North America have passed bylaws prohibiting or limiting smoking in public places and workplaces.

In 1994, Ontario proclaimed the Tobacco Control Act (TCA), which among other things, restricts smoking in many public places and prohibits it in others. Although the TCA does not include restaurants, bowling alleys, bingo halls, and arenas, it permits municipalities to make all public places and workplaces smoke-free.

Recently, the City of Vaughan, Ontario enacted the most restrictive bylaw in the province, prohibiting smoking in all workplaces and public places, including restaurants and arenas. The City of Vancouver has introduced legislation banning smoking in virtually all public places, including restaurants. The Toronto City Council recently passed a bylaw banning smoking in restaurants, bars, and entertainment facilities effective January 1, 1997. It is part of a Metro-wide effort to pass bylaws in all six municipalities that make up Metropolitan Toronto. The implementation of smoke-free workplaces and public places bylaws in other municipalities would see them join Vaughan, Toronto, and Vancouver at the forefront of tobacco control in Ontario and Canada.

Boards of Health in Ontario have a mandate to protect and improve the health of the populations they serve. Integral to this goal is the elimination of tobacco use. ETS, also referred to as second-hand smoke, is the largest source of indoor air pollution and a mixture of many known carcinogens for which there is no safe level of exposure. Despite various controls on public smoking at the local, provincial, and federal levels, exposure to ETS continues to be a problem in

many public places and workplaces. This review will provide evidence to suggest that all municipalities in Ontario should prohibit smoking in all indoor public places and workplaces.

HEALTH EFFECTS OF ETS

The harmful effects of tobacco use on human health are well known. More than 13,000 people in Ontario die each year from tobacco use, making it the leading preventable cause of disease and death in the province (Schabas, 1991). This is almost five times the number of people who die from traffic accidents, suicides, and AIDS combined. Tobacco users have a higher risk of developing heart disease, lung cancer, chronic lung disease, stroke, and cancers of the mouth, throat, esophagus, and bladder than non-users of tobacco (Schabas, 1991).

The health hazards of exposure to ETS have only recently been established (Brownson et al., 1992). ETS is composed of smoke exhaled by the smoker (mainstream smoke) and smoke from the burning ends of cigarettes, cigars, and pipes (side stream smoke). Breathing ETS is also known as involuntary or passive smoking (Local Tobacco Control, 1994). ETS contains over four thousand chemicals, fifty of which are known to cause cancer. Based on the U.S. Environmental Protection Agency's (EPA) risk assessment guidelines, ETS is classified as a Group A (known human) carcinogen in the same class as arsenic, asbestos, and radioactive substances (EPA, 1992).

According to recent health survey data, ninety-two percent of the U.S. population aged four years and older have detectable levels of serum cotinine, a byproduct of nicotine metabolism, indicating widespread exposure to ETS (Pirkle, et al., 1996). Both the home and workplace environments significantly contribute to ETS exposure. ETS has been linked to lung cancer deaths in non-smokers (Erikson, Le Maistre, and Newell, 1988). Exposure to second-hand smoke is estimated to cause about 330 deaths in Canada from lung cancer (Wigle, et al., 1987). For non-smokers married to smokers, ETS increases the risk of death from heart disease by twenty to thirty percent (Glantz and Parmley, 1991; Steenland, 1992; American Heart Association, 1992). ETS is also associated with respiratory problems in young children (Chilmonczyk et al., 1993; Ugnat, Mao, Miller, and Wigle, 1990). Children, especially infants, who breathe second-hand smoke suffer from ear infections, colds, bronchitis, asthma, pneumonia, and undergo surgery to remove their tonsils and/or adenoids more often than children who are not exposed to ETS (DiFranza and Lew, 1996). Mothers who smoke are more likely to have low birth weight babies (Floyd et al; 1993).

Intrauterine and passive tobacco smoke exposure during pregnancy may also be associated with an increased risk of Sudden Infant Death Syndrome (SIDS) (Schoendorf and Kiely, 1992). It is unconscionable to allow children to be exposed to ETS given the overwhelming evidence of its adverse effects on their health.

In addition to causing disease and premature death, ETS is also the source of a number of less serious and acute health problems. It irritates the eyes, nose, and throat and causes headaches, nausea and dizziness. Many people have allergies, respiratory conditions such as asthma, or other health problems which can be aggravated by second-hand smoke (Erikson, Le Maistre, and Newell, 1988).

Cigarette smoking in Canada has declined over the last thirty years both nationally (Health Promotion Survey, 1990) and provincially (Schabas, 1991). This decrease appears to be levelling off and may be increasing (Health Canada, 1995). Almost seventy percent of the Ontario population currently does not smoke (Schabas, 1991). However, it is still very common for non-smokers to be exposed to environmental tobacco smoke in homes, public places, and workplaces. For example, levels of second-hand smoke in public places in the Kingston area of Ontario were found to be unacceptably high. In a study carried out by the Kingston, Frontenac and Lennox and Addington (KFL&A) Health Unit in June of 1986, the results showed that the highest value of respirable suspended particulate concentrations (RSP) measured (in a segregated smoking environment) was 1261 times higher than the acceptable level of 0.75 ug/mg^3 . The next highest value, which was nearly 800 times the acceptable level, involved the exposure of non-smokers. The lowest value measured was more than 20 times greater than the acceptable level (Anti-smoking Strategy, 1988).

ETS in the workplace is a significant health hazard for bar and food-service workers (National Clearinghouse on Tobacco and Health, 1995). The epidemiological evidence suggests that there may be a fifty percent increase in lung cancer risk among food-service workers that is partly attributable to workplace ETS (Siegal, 1993). A recent evaluation discussing the effects of smoking bylaws on people living in the City of Toronto estimated that restaurant patrons' lifetime risk of death due to lung cancer ranges from 1 in 25,000 to 1 in 250 individuals (Kendall, 1994). This risk is based on an average exposure of 0.86 hours per day in a restaurant with 100 seats. The reported lifetime risk is higher than the generally "acceptable" risk level of 1 in 100,000 to 1 in 1,000,000. This "acceptable" level of workplace exposure to ETS is based on societal standards for

permissible human exposures to environmental carcinogens such as chemical emissions (Local Tobacco Control, 1994).

PUBLIC ATTITUDES, BELIEFS, AND PERCEPTIONS

Public knowledge in Ontario of the health hazards associated with both direct and passive smoking has increased over the past decade (Pederson, Bull, Ashley, and Kozma, 1992; Bull, Pederson, and Ashley, 1994). In one study, increases were found in the population's reported knowledge of specific health effects between 1983 and 1991 (Pederson, Bull, and Ashley, 1994). The study also revealed marked changes in attitudes on restrictions to smoking. In 1991, the population consistently favoured more restrictions on smoking when compared with earlier studies. Most smokers indicated they would comply with more restrictions if they were imposed. In addition, respondents recognized a role for local health departments in enforcement of these same standards.

In a March 1994 survey of attitudes toward tobacco control policies, the Addiction Research Foundation (ARF) found that Ontarians were far more supportive of most control measures than they were only two or three years earlier (Ontario Tobacco Use and Policy Attitudes 1991 - 1994). Ninety percent of Ontarians favoured workplace bans, including eighty-five percent of smokers. About half of those surveyed, including fifty-seven percent of non-smokers, wanted further restrictions on smoking in public places.

Studies of attitudes toward control policies reveal support for tighter restrictions on smoking at the local level as well. For example, a poll conducted in the City of Scarborough, Ontario revealed that seventy-four percent of residents favoured the concept of a 100 percent smoke-free bylaw for all enclosed public places and workplaces (Mee, et al., 1995). An ARF survey of Kingston area residents showed strong support for imposing various limitations on establishments that allow smoking on their premises (Information for Action, 1995; Information for Action II, 1996). In both 1992 and 1993, more than three quarters of respondents agreed that people should not smoke in homes where there are children. This increased to eighty-two percent in 1994. Similar support was found for banning smoking in the workplace. Levels of support for bans in restaurants were largely unchanged between 1992 and 1994 (fifty-five to fifty-nine percent). Overall, these surveys reveal considerable support for policy control measures.

CURRENT LEGISLATION ON PASSIVE SMOKING

Public policy and legislation are important components of effective health promotion programs along with advocacy, self-help, health education, community development, mass communication, organizational change, and fiscal measures. Examples of these can be taken from the literature surrounding the prevention of motor vehicle accidents. When Jonas and Lawson (1985) examined the effectiveness of the first four provincial seat belt laws in Canada, they concluded that the laws resulted in reductions of fatalities and injuries of eleven percent and six percent, respectively. With respect to drinking and driving, the state of Michigan in the U.S. reported significantly lower numbers of fatalities from motor vehicle accidents after the legal drinking age was raised from nineteen to twenty-one in 1978 (Vingilis and Smart, 1991).

Legislation to control tobacco is an effective element of a comprehensive tobacco reduction strategy (Bridgen, Peck, and Coy, 1993). This comprehensive approach entails a variety of strategies, including health education and public information, smoking cessation, price policy, and legislation (Kunze, 1990). Legislation regarding smoking has at least two functions: to protect individuals from the harmful effects of ETS and to prevent young persons from smoking.

In the short run, policies and legislation that are adequately implemented and enforced alter the behaviour of smokers in places where smoking is prohibited, and should result in reduced concentrations of ETS in those areas (Byrd, 1992). In the long run, policies and legislation that restrict smoking in public places and the workplace help to reinforce non-smoking as normative behavior (Byrd, 1992). Smoking restrictions increase public awareness and acceptance of the adverse health effects of tobacco use. The combination of altered social norms and reduced opportunities to smoke may encourage smokers to quit and non-smokers, especially adolescents, not to smoke (Byrd, 1992).

In Canada, a number of federal, provincial, and municipal laws deal with the sale and consumption of tobacco products. The Non-Smokers Health Act (Canada) protects workers from ETS in all private and public workplaces that fall under federal jurisdiction. The Smoking in the Workplace Act (Ontario) restricts smoking in the workplace by establishing minimum standards that limit exposure to ETS in all workplaces. This effectively is no ban at all. Designated smoking areas are permitted, provided they do not exceed twenty-five percent of the total workspace (Tobacco Control Act, 1994, Reference Manual).

Ontario's Tobacco Control Act (TCA) is one of the most stringent anti-tobacco laws in North America. Among other things, the TCA restricts smoking in certain places (hospitals, nursing homes and other health facilities, colleges, universities, and shopping malls) and prohibits it in others (schools, day nurseries, transit shelters, video and amusement arcades, and the public areas of retail stores, hairdressing shops, banks, and self-serve laundries). In his evaluation of exposure to ETS in public places one year after enactment of the TCA, Abernathy (1995) found the amount of smoke (measured by the amount of nicotine vapour in the air) in seven of the nine types of premises tested (i.e., schools/colleges/universities, nursing homes, retail stores, arcades, common areas of malls, laundries, hair salons) decreased by sixty-seven percent. In the other two, hospitals and day nurseries, the baseline levels of ambient smoke were virtually non-existent.

The TCA does not include public places such as restaurants, arenas, and bowling alleys; however, the Act permits municipalities to create bylaws regulating smoking in public places and workplaces. Effects of the Act allowing for more restrictive local bylaws are being monitored, but will require more than one year to show change (Abernathy, 1995). The TCA is designed to complement existing tobacco control legislation. If specific terms of the TCA relate to the same issue as any other legislation or bylaw, the most restrictive law applies.

MUNICIPAL TOBACCO CONTROL

American municipalities have been on the leading edge of local tobacco control. For example, as of June, 1994, the U.S. had 136 municipalities with a smoke-free restaurant provision as part of their smoking-control ordinances. Los Angeles and San Francisco are prime examples. A smoke-free restaurant provision has been legislated at the state level for two U.S. states, Utah and Vermont. As well, 108 U.S. municipalities have tobacco control ordinances making workplaces within their jurisdictions completely smoke-free (Local Tobacco Control, 1994).

In 1994, a small survey of thirty-nine municipalities in Canada with a population of 100,000 or more and provincial capitals with a population less than 100,000 was undertaken. Of the thirty-three municipalities that responded, ten had a smoke-free workplace bylaw. In contrast, none of the municipalities had a smoke-free restaurant provision as part of its smoking control bylaw (Council for a Tobacco-Free Ontario, 1994). The Appendix lists examples of Canadian and U.S. cities with smoke-free public places and/or workplaces bylaws as of September, 1996.

Vancouver has introduced one of the most stringent smoking control bylaws in Canada. Smoking is prohibited in all indoor public places, including restaurants and malls and workplaces. Smoking is permitted in liquor outlets, casinos, bingo halls, or other commercial establishments where entry by minors is prohibited, provided the owner installs and maintains ventilation equipment that meets certain criteria set by the bylaw. The bylaw was developed in the wake of extensive public consultation, including a public opinion survey in which two out of every three respondents said they would support a municipal bylaw in their community to prohibit smoking in all indoor public places (Angus Reid Group, 1995).

In Ontario, many municipalities have bylaws regulating smoking in public places, and the number has grown over the past decade. In 1983, twelve municipalities had such bylaws, and four had bylaws restricting smoking in the workplace (Bull, Pederson, and Ashley, 1994). By 1990, seventy-four municipalities in Ontario had smoking and tobacco bylaws (Smoking and Tobacco Control in Ontario: A Municipal Focus, 1991). Since then, numerous municipalities have adopted or plan to adopt such bylaws. Guelph, for example, recently introduced a bylaw despite substantial opposition from Imperial Tobacco which operates a factory in the City. The Guelph bylaw was the first in Ontario to implement smoke-free restaurants and takes effect at the one hundred percent level in the year 2000. The City of Toronto recently passed a bylaw prohibiting smoking in restaurants, bars, and entertainment facilities effective January 1, 1997.

In a precedent-setting unanimous vote by the Council of the City of Vaughan, all workplaces and public places in the municipality are smoke-free as of May 1996. Building on a previous bylaw which prohibited smoking in all city-owned facilities, the new bylaw prohibits smoking in the following locations:

“Enclosed public places which includes but are not limited to restaurants, hospitals and health care facilities, child care facilities, recreation halls, arenas, retail stores and retail food shops, service counters, service lines, lobbies, commercial establishments, taverns, office buildings, shopping malls, educational and financial institutions, bingo halls, bowling alleys, banquet halls, hotels, municipal government buildings or other places open to clients, customers, patients, students, or other members of the public” (OCAT, 1996).

This is the most restrictive bylaw in force in Canada because of the number of places covered and because of the time line for implementation. If maintained in force, the Vaughan bylaw could have a major impact on other municipalities, for example, those in the Greater Toronto Area which are presently moving toward smoke-free bylaws. Municipalities throughout Ontario which have begun efforts to revise tobacco control bylaws following proclamation of the TCA could also be influenced by the leadership of Vaughan and Toronto.

ISSUES

Ventilation and Cleaning Systems

Ventilation is frequently offered as a solution to ETS. The Vancouver Health Department conducted research into the efficacy of ventilation to reduce ETS to "acceptable" levels which clearly indicated that ventilation and air cleaning can achieve an adequate "comfort" level, but current technology cannot be relied upon to provide a safe "health" level (Vancouver Health Department, 1995). Vancouver's assessment of the performance of the best available air cleaning technology against proposed health standards indicates that it would be unable to reduce ETS to acceptable levels in smoking-permitted establishments. In public places such as bars and restaurants, independent ventilation is insufficient: employees still have to work in the smoking sections. This technology could work only if there were a separately enclosed room on the premises and were used for no other purpose than smoking, that is, no meals could be served there (OCAT, 1995).

Another inherent problem with ventilation systems is the considerable cost of installation and maintenance. In large establishments, the capital costs of upgrading ventilation/air filtration equipment can exceed \$100,000.00 coupled with increased operating costs to provide more heated/cooled outdoor air (Vancouver Health Department, 1995). This would be impractical and costly for small establishments. Such systems also rely on human intervention to change filters and to repair and maintain equipment - another potential weakness. Reliance on technology to address the ETS issue would also be costly in terms of monitoring and enforcement - costs ultimately borne by the taxpayer. Such costs are difficult to justify in these times of economic restraint, especially when a more cost-effective solution is to deal with ETS at the source.

Impact on Business

It is often argued that business will suffer if smoke-free bylaws are introduced. Such claims are usually based on opinion and anecdotal evidence rather than sound scientific data. For example, the Ontario Restaurant Association (ORA) undertook a poll of its members in 1994 to determine the impact of a smoking ban on restaurants (OCAT, 1995). Almost seventy-two percent of respondents stated that a ban would result in fewer restaurant customers. However, the ORA does not provide information about the survey sample or the response rate. The survey data rely on restaurant owners' self-reported opinions and impressions, rather than objective, unbiased data, such as sales tax receipts. Furthermore, respondents do not provide a dollar amount of the perceived change in retail sales. Even if such estimates were provided, they would be crude totals and therefore useless in ascertaining any real economic impact (OCAT, 1995).

In all cases where an objective analysis of data (i.e., sales tax revenue) has been conducted a year or two after implementation, the findings have revealed a neutral to positive impact on business. Glantz et al. (1994) analyzed sales tax data for the first fifteen U.S. cities to enact smoke-free ordinances affecting restaurants. They also examined sales tax data from fifteen comparison cities similar to the smoke-free cities in population, income, smoking prevalence, and other factors. In all fifteen smoke-free cities studied, there was no statistically significant effect of the ordinance on restaurant sales. Similarly, the Taylor Consulting Group (1993), Maroney et al. (1994), and Huang (1994) found no significant effects of smoke-free ordinances on restaurant sales in the California and Texas communities they studied.

Opponents frequently argue that smoke-free bylaws will drive patrons to restaurants in nearby communities that lack such bylaws. There is no support for this claim. A survey of City of Scarborough residents indicated that the public would frequent establishments more often or the same amount if they were smoke-free. In the restaurant patron survey, seventy-nine percent of restaurant patrons indicated they would not travel outside Scarborough to an establishment that did permit smoking (Mee et al., 1995). Glantz et al. (1994) found that restaurant sales in Sacramento, one of the smoke-free cities, were no different than those of the surrounding Sacramento County, which did not have a smoke-free ordinance in effect.

Cornell University (1995) recently studied the impact of New York City's Smoke-Free Indoor Act, in effect since April, 1995, which bans smoking in restaurants with more than thirty-five

seats. Researchers surveyed patrons concerning changes in their dining behaviour. Their findings demonstrate both a decrease in smokers' dining-out behaviours and an increase in non-smokers' dining-out behaviours. The researchers conclude that ultimately smoke-free legislation is likely to have a positive effect on restaurant industry revenues.

In the only Canadian study focusing on the impact of smoke-free policies on restaurant business, the Conference Board of Canada (1996) concluded that the experience of going smoke-free was positive for the majority of restaurants examined, though not all made the transition easily. Overall, employee reaction to the smoke-free policies was favourable, and the majority of restaurants reporting on customer satisfaction with the new policies indicated that it was favourable, as well.

Neither is business adversely affected by smoke-free workplace bylaws. Canadian municipalities with a smoke-free workplace bylaw that participated in the 1994 survey mentioned earlier did not report economic losses as a result of implementing the smoke-free workplace bylaw (Council for a Tobacco-Free Ontario, 1994). The municipalities with a smoke-free bylaw were East York, Toronto, Edmonton, Etobicoke, Hamilton, Ottawa, Richmond, B.C., Surrey, B.C., Vancouver and Victoria.

Many establishments report significant benefits as a result of going smoke-free: reduced cleaning, repair, and maintenance costs for furnishings, wall and floor coverings, draperies, and equipment such as ventilation systems; lower absenteeism and fewer employee sick days; improved fire safety and lower fire insurance rates; and decreased likelihood of lawsuits initiated by employees or customers impaired by the adverse health effects of ETS. For example, after Air Canada went smoke-free in the early 1990's it estimated that it saved approximately \$700 thousand in cleaning, maintenance, and repair costs on its aircraft in the first year alone (OCAT, 1995). The U.S. Environmental Protection Agency estimates that housekeeping and maintenance costs related to ETS cost American businesses \$5 to 10 billion a year (Vancouver Health Department, 1995).

Impact on Tourism

Smoke-free bylaws also provoke fears of tourism loss. Again, there is no support for this claim (OCAT, 1995). In the Glantz et al. study (1994), restaurant sales did not drop for the three resort cities studied in Colorado, which are near other resort towns that do not have smoke-free

ordinances. These towns would be viable tourist alternatives to the smoke-free resort cities. The fear of tourism loss has been studied in Australia where the belief that Japanese tourists have a strong preference for smoking restaurants and smoking rooms in hotels was not supported by a survey which showed that fifty-six percent of tourists preferred non-smoking sections and rooms. Both California and New York City have thriving tourism industries under smoke-free legislation (Vancouver Health Department, 1995).

Smokers' Rights

The right to smoke is often invoked as an argument against smoking control bylaws. Our society has traditionally set limits on individual rights when they affect the rights of other people. In keeping with this tradition of protecting its citizens from harm, society has set limits on smoking. These limits do not infringe on a person's right to smoke, only where a person can smoke. Policies and laws restricting or prohibiting smoking are based on the principle that no one has the right to harm another person and that people have the right to conduct their daily affairs in environments free from the hazards of ETS. Put another way, the right to breathe clean air takes priority over the right to smoke. It is worth noting that tobacco not only affects adversely the health of users, but also imposes economic and other burdens on others around them and the larger society. Society bears much of the costs of health and social problems, including sickness, death, pain and suffering, accidents and crime (e.g., smuggling) (Xie, Rehm, Single, and Robson, 1996).

Enforcement

Typically, municipalities employ the "self-enforcing" or voluntary compliance method to enforce their bylaws respecting smoking. The educational approaches used create awareness of where smoking is allowed, and consequently, where it is not allowed (Local Tobacco Control, 1994). The thirty-three Canadian municipalities that responded to a 1994 survey did receive complaints about non-compliance. In general, the complaints occur shortly after enactment of the bylaw and tend to drop off, especially when followed up with continuing education of employees and staff (Local Tobacco Control, 1994).

The hospitality industry in Canada has raised enforcement as a concern. For example, some Canadian municipalities report that the greatest non-compliance problems occur in bars and

recreational facilities. Municipalities such as Hamilton and Toronto have found that "self-enforcement" is not as effective in these establishments and more active enforcement is required. (Local Tobacco Control, 1994). Some of these municipalities have a bylaw officer who develops educational strategies to maximize compliance and who can issue tickets when an acceptable level of compliance is not obtained through education alone. Municipalities might be concerned that smoke-free bylaws will be an additional burden on their existing enforcement capabilities. Based on the experience of other jurisdictions with smoke-free bylaws, enforcement should, in the long-term, be simpler since the counting of seats and the designation of smoking and non-smoking areas will be unnecessary (Vancouver Health Department, 1995).

The purpose of this applied literature review was to explore the facts and issues related to municipal bylaws surrounding the control of environmental tobacco smoke. We conclude with some suggestions for action that have been used effectively in the development and implementation of such bylaws. These are reported in two sections: Marshalling Public Support and Implications for Policy.

MARSHALLING PUBLIC SUPPORT

Public opinion surveys to assess community support for smoke-free bylaws have been conducted in several Canadian cities. Generally, the polls indicate widespread support for smoking bans in public places and workplaces (Mee, 1995; Information for Action, 1995; Information for Action II, 1996). If favourable towards the concept of a ban, the survey findings could be used to persuade municipal councils of the importance of and public support for smoke-free bylaws. The surveys could also be useful in encouraging local citizens to put pressure on their elected officials to support the enactment of smoke-free bylaws within their municipalities.

Rallying public support would be an important component of the proposed bylaw development process. For example, concerned citizens and business operators who have already contacted their health unit to lodge complaints about smoking in public places and /or workplaces or to express support for smoking bans could be approached to speak out in favor of such bylaws. Local individuals, (e.g., physicians) and organizations (e.g., local council on smoking and health, Addiction Research Foundation, Canadian Cancer Society) with an interest in tobacco reduction could also be called upon to show their support. When the Scarborough Board of Health held a

public consultation regarding the concept of a smoke-free bylaw, a group of concerned citizens formed a coalition. The Coalition's objective was to mobilize citizens to bring pressure to bear on Scarborough City Council to develop an effective, smoke-free bylaw to prevent ETS exposure in public places and workplaces (Coalition for a Smoke-Free Scarborough, 1996). Their efforts resulted in greater public awareness of the dangers of ETS and the proposed changes to the municipal bylaw. As well, the Coalition succeeded in getting many citizens to contact the mayor and city councillors, resulting in the acceptance of the smoke-free guidelines.

Recently, the Council for a Tobacco-Free Metro Toronto launched a button and sticker with the slogan, "Support Smoke-Free 100%" in support of the Metro Toronto bylaw campaign. With funds provided by the Council for a Tobacco-Free Ontario, 1,000 buttons and 3,500 stickers were produced. The former are intended for people intimately involved in the campaign and the latter for those "one-timers" who turn out to give visible support at public meetings. Sample buttons, artwork, and specifications were distributed to health units and interagency councils on smoking and health for possible use in their bylaw campaigns.

Effective strategies for garnering the support of local citizens will need to be explored and applied.

To ensure the successful implementation of smoke-free bylaws, public support will be crucial and cannot be overlooked.

IMPLICATIONS FOR POLICY

A growing number of municipalities have passed bylaws prohibiting or restricting public smoking, while others are considering such bylaws. Given current knowledge about the serious health hazards of ETS, it is clear that prohibitions on smoking in all workplaces and public places provide the optimal protection of worker and public health. Research suggests that there is strong public support for smoke-free bylaws and that they do not do not adversely affect business or tourism.

Despite the evidence, some municipalities might choose not to introduce 100 percent smoke-free bylaws, at least not initially. Instead, they might opt in favour of interim smoking control measures on the way to a ban. This option would meet the public health objective, but over a longer time period. For example, municipalities might first prohibit smoking in some establishments, such

as restaurants and workplaces and then phase in a ban in other establishments. Restaurants are among the most commonly frequented public places. Smoke-free workplaces are also important, given the number of mandatory hours people spend on the job. Another argument for this approach might be that non-restaurant establishments should receive the same phase-in treatment that restaurants have received. Municipalities might phase in prohibitions over several years with increasingly lower percentages of smoking seats until a ban is achieved (Vancouver Health Department, 1995). This “go slow” approach would ease restrictions into establishments that are currently required to provide non-smoking sections as well as those that have not been subjected to restrictions. However, given what is known about ETS exposure, this approach would continue to put health at risk.

Finally, some municipalities elect to do nothing. This is also known as “letting the marketplace decide”, and is the preferred approach of the hospitality industry (OCAT, 1995). Under this option, smoking control bylaws would remain non-existent or those not fully restrictive would stay unchanged. As a result, ETS in many public places and workplaces would continue to be a problem unless it is regulated by provincial or federal legislation. Over the long-term, more restaurants and other places would likely become smoke-free in response to market pressures. From the public health perspective, “doing nothing” is insupportable since it continues to put employees and the public at risk (Vancouver Health Department, 1995). The first responsibility of Boards of Health is to protect and improve the health of the populations they serve. This includes ensuring the safety of food, water, and the environment. Just as polluted water and contaminated food are threats to public health, so is smoke-filled air. The public needs to be protected against them all.

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APPENDIX

Examples of Canadian and Major U.S. Cities with 100% Smoke-free Public Places and/or Workplaces Bylaws

CANADA	UNITED STATES
East York, Ontario	Aspen, Colorado
Edmonton, Alberta	Beverly Hills, California
Etobicoke, Ontario	Los Angeles, California
Hamilton, Ontario	New York City, New York
Nepean, Ontario	San Francisco, California
North York, Ontario	
Ottawa, Ontario	
Richmond, British Columbia	
Toronto, Ontario	
Vancouver, British Columbia	
Vaughan, Ontario	
Victoria, British Columbia	

The Ontario Tobacco Research Unit (OTRU) was established by the Ministry of Health in July 1993. Its mission is to undertake a program of research, development and dissemination of knowledge about effective tobacco control programs and policies. It will assure that existing knowledge is critically evaluated, summarized appropriately, and made available in the most useful form. In collaboration with individuals, groups, and agencies interested in and responsible for developing tobacco reduction programs and policies, the OTRU will lead in the identification of priority areas for knowledge development. The OTRU will produce a program of research based on these identified priorities. Finally, the OTRU will ensure that knowledge is disseminated widely to programmers and policy makers, to the research community and, where appropriate, to the general public.

OTRU Literature Reviews are published to provide the tobacco research community with timely and relevant information. For more information, please contact our office.

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